



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

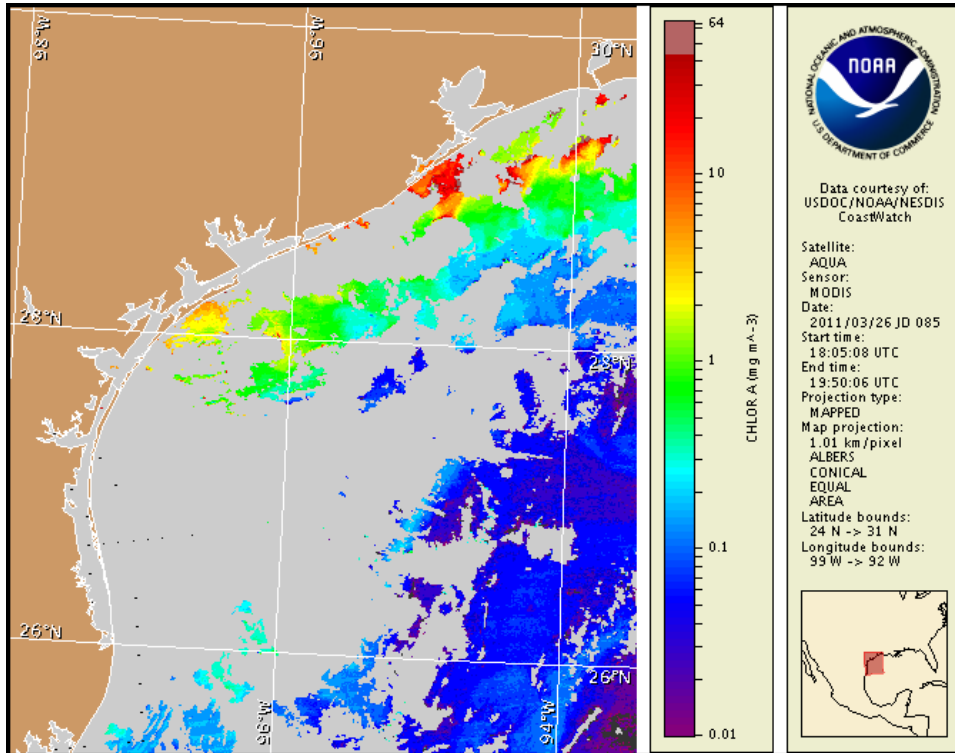
Monday, 28 March 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, March 21, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 19 to 24 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

## Conditions Report

There is currently a bloom of the harmful algae, *Dinophysis*, around St. Charles, Corpus Christi and Aransas bays. This algal bloom does not produce respiratory irritation impacts associated with the Texas red tide caused by *Karenia brevis*. No respiratory irritation impacts are expected alongshore Texas today through Sunday, April 3.

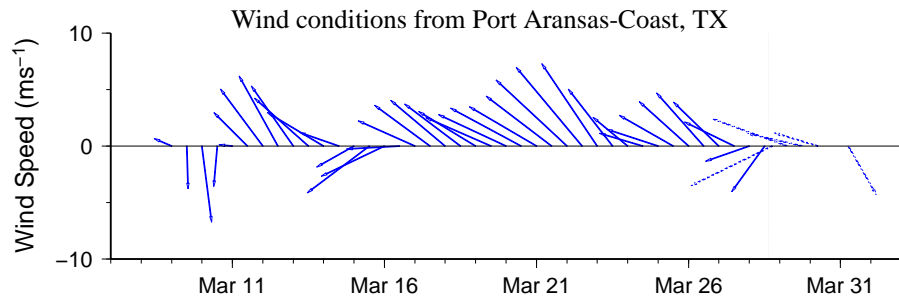
## Analysis

A bloom of *Dinophysis ovum* continues to be reported in St. Charles, Corpus Christi, and Aransas bays. Blooms of *Dinophysis* are rare in the US and we do not have a standard for monitoring with remote sensing. Imagery does not provide a useful reference for the blooms, but may help visualize circulation patterns. *Dinophysis* does not produce respiratory impacts associated with the Texas red tide caused by *Karenia brevis*; however, the bloom has resulted in shellfishing restrictions in the following areas and bays: Corpus Christi, Aransas, and St. Charles (TPWD; 3/24). Updates on this bloom will continue to be provided as information becomes available.

Recent imagery is obscured by clouds, limiting analysis. MODIS imagery from 3/26 (shown left) indicates elevated to significant chlorophyll (7 to >20  $\mu\text{g/L}$ ) along- and off-shore the Galveston to Freeport area. The full extent of the elevated chlorophyll region is unknown due to cloud cover in the imagery. Imagery from last week (MODIS 3/23) indicated only slightly elevated chlorophyll (1-5  $\mu\text{g/L}$ ) in this region and along the majority of the Texas coastline. Elevated chlorophyll at the coast is likely due to the resuspension of benthic chlorophyll and sediments and not related to a harmful algal bloom.

Transport models are based on movement in the Gulf of Mexico, thus we cannot forecast the transport of the *Dinophysis* bloom in the bays at this time. Forecast models indicate a maximum transport of 15km north along the coast from Port Aransas from March 26-28.

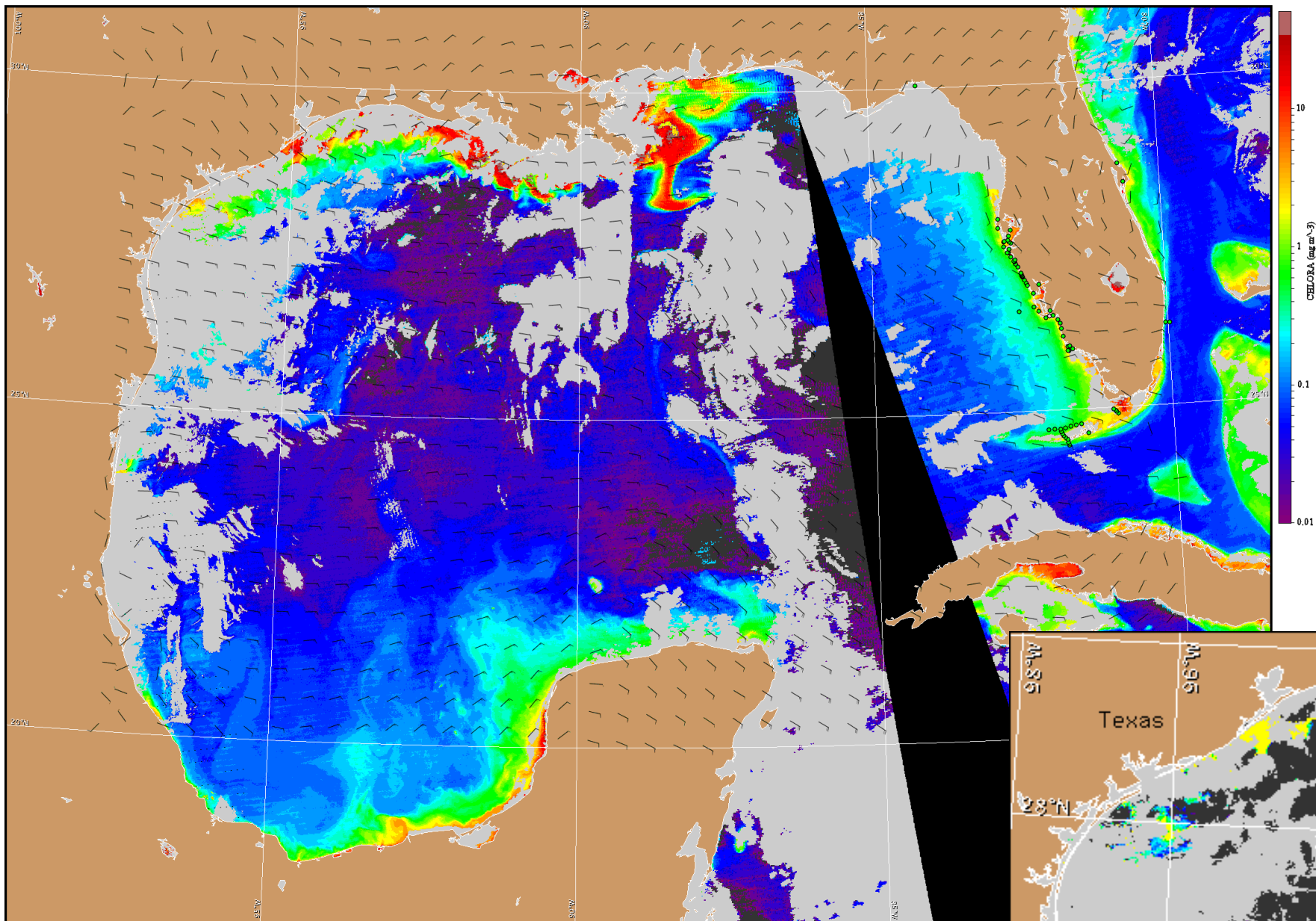
Derner, Kavanaugh



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

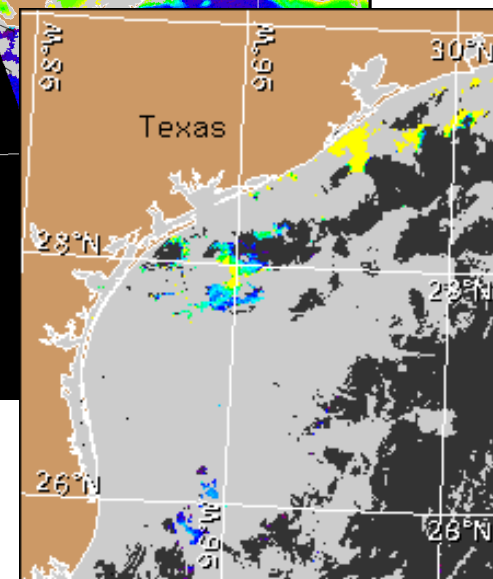
## Wind Analysis

**Port Aransas:** Northeast winds (10-15kn, 5-8m/s) today, becoming east (5-15kn, 3-8m/s) tonight through Tuesday. Northeast winds (5-15kn) Wednesday and Thursday. East winds (5-10kn, 3-5m/s) Friday.



Satellite chlorophyll image and forecast winds for March 29, 2011 06Z with cell concentration sampling data from March 19 to 24 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).